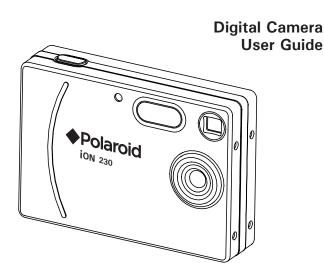
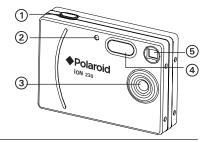


## iON 230

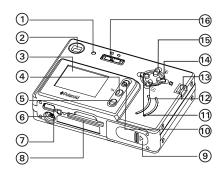


### **Product Overview**

- 1. Shutter button
- 2. Self-timer LED
- 3. Lens
- 4. Flash
- 5. Viewfinder



- 1. Power/Flash charge LED
- 2. Viewfinder
- 3. LCD screen
- 4. Flash/OK button
- 5. Display button
- 6. Tripod mount
- 7. USB port
- 8. SD card slot
- 9. Battery door
- 10. Power button
- 11. Left button
- 12. Down/Zoom out button
- 13. Hand strap holder
- 14. Right/Menu button
- 15. Up/Zoom in button
- 16. Capture/Playback selector



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### 1 Getting Started

The iON 230 camera provides you easy-to-use features. It has never been any easier or more enjoyable to take digital pictures. Here are a few examples of what you can do with your camera.



Enjoy point & shoot operation. Adjust the resolution for print or email.



Store pictures, video clips to the internal memory or a SD card.



Playback of pictures and video clips on the LCD screen or a computer.



Send the pictures and video clips over the Internet to family and friends.

### Camera Package Contents









iON 230

Pouch

Registration Card

The CD-ROM includes iON 230 Camera Driver (PC) iON PhotoBase (PC & Mac) Microsoft NetMeeting (PC) Adobe Acrobat Reader (PC & Mac) User Guide (in PDF format)









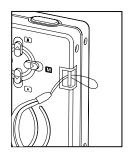
Quick Guide

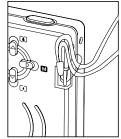
Hand Strap

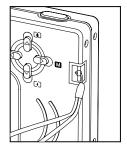
2xAA-size Batteries

**USB** Cable

### Attaching the Hand Strap







### • Installing the Batteries

Two AA-size batteries are supplied with the product. For a detailed guideline on battery usage, please see "Using Your Batteries" on page 54.









#### IMPORTANT NOTE:

For best performance and prolonged battery life, we recommend the use of AA lithium or rechargeable NiMH.

### • Turning the Camera On and Off

Fully press and hold the Power button until the status LED turns green and the camera is on. Press and hold the Power button again, the camera will be off.



### Checking the Battery Level

Check the battery power level before taking pictures.

- 1. Turn the camera on.
- 2. Check the battery level status that appears on the camera LCD screen.

Battery power is full.

Battery power is adequate.

Battery power is exhausted.



Menus are used to adjust capture and play settings, as well as other camera settings like the Date/Time and Auto Power Off.

1. Press the D button to enter the menu list.





2. Press the  $\bigcirc$  or  $\bigcirc$  button to select the desired setting.

3. Press the button to confirm.

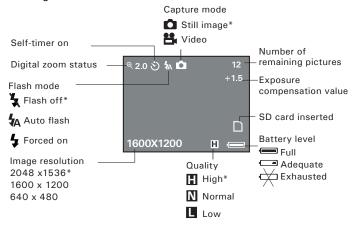


### 2 Camera Setting

### • Checking Camera Status

Turn on the camera, view the camera LCD screen to check which camera settings are active. If the feature icon is not displayed, it means that particular feature is not activated.

#### Still image mode

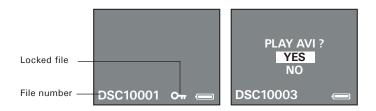


Default Setting

#### Video mode

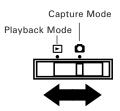


### Playback mode



#### Camera Mode

The camera has two working modes, Capture mode and Playback mode. You can switch between them by sliding the Capture/ Playback selector.



#### Drive Mode

The camera has two modes for taking pictures and video clips.

Still Image Mode

Video Mode

You may switch between these two modes according to the following steps.

- 1. Set the camera to Capture mode
- 2. Press the button.
- 3. Press the result of the or result of the select "CAPTURE MODE".
- 4. Press the (3) button.
- 5. Press the ☐ or ☑ button to select the desired setting.
- 6. Press the (1) button.
- NOTE:

Still Image mode is the default capture mode.

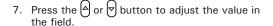






### Setting the Current Date and Time

- 1. Set the camera to Capture mode.
- 2. Press the button.
- 3. Press the  $\bigcirc$  or  $\bigcirc$  button to select "DATE TIME".
- 4. Press the button.
- 5. Press the  $\bigcirc$  or  $\bigcirc$  button to select "SET".
- 6. Press the (3) button.



- Press the or button to switch to the next field.
- 9. Press the 🕽 button.
- 10. Press the ♠ or ♥ button to select the desired setting.
- 11. Press the (3) button.

### Auto Power Save Settings

The camera performs the following power save operations to conserve battery power.

OFF

1/3 MIN

The power save feature is not activated.

The camera is designed to switch off automatically to save battery life after the specified period of inactivity.









You can change the power save setting according to the following steps:

- 1. Set the camera to Capture mode.
- 2. Press the button.
- 3. Press the ♠ or ♥ button to select "AUTO OFF".
- 4. Press the (1) button.



- 5. Press the ♠ or ♥ button to select the desired setting.
- 6. Press the (1) button.



### NOTE:

NOTE:
This setting is also available in Playback mode.



### Setting the Beep Sound On and Off

You can turn the beep sound on and off in Capture mode. When the beep sound is turned on, the camera will beep when you press the buttons.

- 1. Set the camera to Capture mode.
- Press the D button.
- 3. Press the  $\triangle$  or  $\overline{\heartsuit}$  button to select "SOUND".
- 4. Press the button.



- 5. Press the ♠ or ♥ button to select the desired setting.
- 6. Press the button.



### Setting Frequency

In order to take a better indoor picture, the camera needs to be set to suit the correct lighting frequency. Set the frequency to 60Hz for US and 50Hz for Europe.

- 1. Set the camera to Capture mode.
- 2. Press the button.
- 3. Press the or button to select "FREQUENCY".
- 4. Press the (3) button.
- 5. Press the a or button to select the desired setting.
- 6. Press the (1) button.





### Setting Display Language

Under this setting, you can select the language you prefer for the LCD screen.

- 1. Set the camera to Capture mode.
- 2. Press the button.
- 3. Press the or button to select "LANGUAGE".
- 4. Press the button.
- 5. Press the  $\triangle$  or  $\nabla$  button to select the desired setting.
- 6. Press the button.





### • Setting the Date Stamp On and Off

Use the date stamp to imprint the date on your pictures and video clips. Make sure the camera clock is set to the correct date before setting the date stamp on.

- 1. Set the camera to Capture mode.
- 2. Press the button.
- 3. Press the ♠ or ♥ button to select "DATE STAMP".
- 4. Press the (1) button.
- 5. Press the  $\bigcirc$  or  $\bigcirc$  button to select the desired setting.
- 6. Press the (1) button.





### Formatting the Internal Memory

Formatting the internal memory deletes all data stored in it.

- 1. Set the camera to Playback mode.
- 2. Press the button.
- 3. Press the  $\bigcirc$  or  $\bigcirc$  button to select "FORMAT".
- 4. Press the 🕽 button.

ERASE
FORMAT
PROTECT
AUTO OFF
ROTATE
EXIT
OK

MENU

- 5. Press the ♠ or ♥ button to select the desired setting.
- 6. Press the button.





#### NOTE:

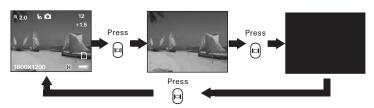
- Data deleted by a format operation cannot be recovered. Make sure you
  do not have any useful data currently stored in the internal memory before
  you format it.
- Formatting the internal memory destroys all the pictures, even those are protected.
- With a memory card inserted, the above operation would format the inserted memory card only. The internal memory will not be formatted with a memory card inserted.

### • Turning the Information Display and LCD Screen On/Off

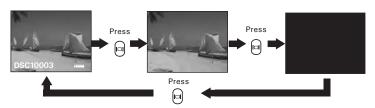
Pressing the button each time switches the LCD screen to the next display mode in the following sequence.



### Capture mode



### Playback mode



### 3 Taking Pictures

# Before you take pictures, please read this note first:



Never remove batteries while a picture is being saved. Doing so will prevent the current picture being saved and may corrupt other pictures already stored in the camera's internal memory or on a memory card.

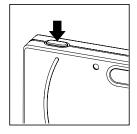
#### **Outdoor Pictures Without the Flash**

- Avoid intense sunlight that may cause sun spots in pictures.
- Always make sure that the sun or other light source is in front of the subject.

### • Taking a Picture

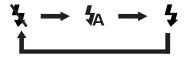
Taking pictures at approximately 4.3 ft to infinity (1.3 metres to infinity).

- Turn on the camera.
- 2. Set the Capture/Playback selector to Capture mode.
- Frame your subject using the LCD screen or viewfinder.
- 4. Press the shutter button to take a picture. Hold the camera steady until you hear a second beep, it means the picture has been taken. The LCD screen shows the number of pictures that still can be taken.



### • Setting Flash Mode

- 1. Set the camera to Still Image mode.
- 2. Pressing the Flash button cycles through the flash modes in the following sequence.



When you press the Flash button, the icon (according to the flash setting you selected) will appear on the LCD screen. You can now take pictures using the flash mode you selected. The flash will recharge after each flashed picture.

The flash range is approximately 3.2 feet to 4.9 feet (1 to 1.5 meters).





The camera has three flash modes. Use the flash when you take pictures at night, indoors, or outdoors in heavy shadows.

When shooting under these conditions:	Select this mode	Icon shown on the LCD screen
The flash does not fire. Use this setting for outdoor pictures, or where flash is prohibited or may be distracting, or when shooting towards a reflective surface, such as a window or a mirror. If there is not enough light when using this setting, your pictures will be too dark.	Flash Off	*
The flash fires automatically as needed. Use this setting to take most pictures.	Auto Flash	<b>4</b> A
The flash fires for every picture. Use this setting in high-contrast situations to provide fill-light or use it indoors in low light.	Forced On	4



#### NOTE:

- NOTE:

   Flash modes are not available in Video mode.
  - Never touch or block the flash with your fingers. Doing so can soil these components and interfere with the correct flash operation.

### Setting Self-timer

Your camera is designed with a self-timer function, which allows you to take pictures with a 10-second built-in timer.

- 1. Set the camera to Still Image mode.
- 2. Press the D button.
- 3. Press the ♠ or ♥ button to select "SELF TIMER".
- 4. Press the 🕽 button.
- 5. Press the a or button to select the desired setting.
- 6. Press the button.





7. The icon 🐧 will appear on the LCD screen.



#### NOTE:

To disable the self-timer function, repeat the above steps and select "OFF".



- 8. Frame your subject using the LCD screen or the viewfinder.
- Press the shutter button to take a picture. The camera starts a tensecond countdown before the picture is taken.



Place the camera on a flat surface or use a tripod when using the self-timer function.

#### Zoom Feature

Your camera is designed with 3X digital zoom. This feature lets you zoom in on the central area of a photo and photograph only the enlarged portion of the picture.

- 1. Set the camera to Still Image mode.
- 2. Press the button to zoom in. Press the button to zoom out. The zoom status is shown on the LCD screen.



Digital Zoom Status

4. 2.0 
12
+1.5

1600X1200 
H

For digital zoom feature, the viewfinder may not reflect the actual image taken. We recommend the user to use the LCD screen to monitor the zoom feature.



#### NOTE:

You may notice a decrease in image quality when using the digital zoom.

. Setting the Image Size and Quality

Picture resolution refers to the number of pixels in a digital picture. Picture quality depends on the JPEG file compression that the camera applies when the picture is taken. Higher resolution and less compression produces better quality but occupies more memory space. Smaller size pictures and normal quality are easier to email while larger size and fine quality are better for printing.

### Image Size Setting

- 1. Set the camera to Still Image mode.
- 2. Press the button.
- 3. Press the ⓐ or ♥ button to select "IMAGE SIZE".
- 4. Press the button.
- 5. Press the ♠ or ♥ button to select the desired setting.
- 6. Press the button.

### EXIT 2048 X 1536 1600 X 1200 640 X 480

**IMAGE SIZE** 

CAPTURE MODE IMAGE SETTING

### Quality Setting:

- 1. Set the camera to Still Image mode.
- 2. Press the button.
- 3. Press the ♠ or ♥ button to select "IMAGE QUALITY".
- 4. Press the button.



- 5. Press the ♠ or ♥ button to select the desired setting.
- 6. Press the button.



The chart below indicates the approximate numbers of pictures you can expect the camera to hold at each setting based on the 8MB internal memory. You can expand the memory with SD card, please refer to "Capacity of SD Card" on page 52 for further details.

Quality Image Size	High	Normal	Low
2048 x 1536 pixels	6	8	15
1600 x 1200 pixels	14	19	22
640 x 480 pixels	50	80	100



#### NOTE:

- Scene complexity affects a picture's file size. For example, a picture of
  trees in autumn has a larger file size than a picture of blue sky at the same
  resolution and quality setting. Therefore, the number of pictures you can
  store on the camera's internal memory may vary. The number of pictures on
  the LCD screen is for reference only.
- It is recommended to use the 2048 x 1536 resolution for printing.

### Image Setting

In this setting you can set exposure compensation, white balance and sharpness according to different shooting conditions. You can select "AUTO" and the camera will set the three settings for you automatically.

### **Setting Exposure Compensation**

You can adjust the exposure compensation value (EV) within the range of -2EV to +2EV in order to compensate for current lighting conditions. This setting can be used to obtain better result when shooting with backlighting, indirect indoor lighting, a dark background, etc.

- 1. Set the camera to Still Image mode.
- 2. Press the button.
- 3. Press the or button to select "IMAGE SETTING".
- 4. Press the button.
- 5. Press the △ or ♥ button to select "EXPOSURE".
- 6. Press the button.











- A higher EV value is best used for light-colored subjects and backlit subjects. A lower EV value is best for dark-colored subjects and for shooting outdoors on a clear day.
- When shooting under very dark or very bright conditions, you may not be able to obtain satisfactory results even after performing exposure compensation.

### Setting the White Balance for Pictures

Selecting the right type of white balance can help to make the color of a subject in a picture appear more natural under the type of lighting that is available.

- 1. Set the camera to Still Image mode.
- 2. Press the button.
- 3. Press the or button to select "IMAGE SETTING".
- 4. Press the button.
- 5. Press the a or button to select "WHITE BALANCE".
- 6. Press the button.
- 7. Press the  $\bigcirc$  or  $\bigcirc$  button to select the desired setting.
- 8. Press the 🕽 button.





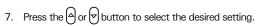


When shooting under these conditions:	Select this mode	Icon shown on the LCD screen
Automatic adjustment.	AUTO	76
Outdoor daylight	OUTDOOR	*
Cloudy	SHADE	0
Indoors, illuminated by tungsten lighting	LIGHT BULB	Q
Indoors, illuminated by fluorescent lighting	FLUORESCENT	#

### **Setting Sharpness**

Use the sharpness setting to highlight or blend the edges of the subject in pictures.

- 1. Set the camera to Still Image mode.
- 2. Press the button.
- 3. Press the ☐ or ♥ button to select "IMAGE SETTING".
- 4. Press the (1) button.
- 5. Press the or button to select "SHARPNESS".
- 6. Press the button.



8. Press the 🕽 button.







NORMAL Use when no special effect is needed. Ideal for

everyday pictures.

SHARP Increases contrast on the edges of the picture. Ideal

when you want to improve the clarity of an picture, or if you later may want to crop or cut out specific areas

in the picture.

**SOFT** Softens the edges of the picture, creating a "soft

focus" effect.

### 4 Recording Video Clips



#### NOTE:

Change the drive mode from Still Image mode to Video mode before recording video clips, since Still Image mode is the default capture mode. Please refer to "Drive Mode" on page 11 for more details.

### Recording Video Clips

Use the Video mode to record video clips without audio feature. The recording time displayed on the LCD screen will increase while recording. In Video mode, the resolution is set to 320 x 240 pixels.

- 1. Set the camera to Video mode.
- 2. Frame your subject using the LCD screen.
- Press the shutter button completely down to start recording.
- Press the shutter button again to stop recording, or recording stops when the current memory is full.



Here are the approximate length of video clips you can expect the camera to hold at  $320 \times 240$  pixels based on 8MB internal memory. You can expand the memory with an SD card.

Resolution 320 x 240 Approx. 2 minutes (10fps)

## 5 Reviewing and Managing Pictures and Video Clips



Change the camera mode from Capture mode to Playback mode before reviewing video clips. Please refer to "Camera Mode" on page 11 for more details.

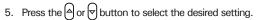
### Reviewing Pictures on the LCD Screen

- 1. Set the camera to Playback mode.
- 2. Press the  $\triangle$  or  $\nabla$  button to view the pictures taken.

### • Rotating the Currently Displayed Picture

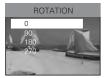
The currently displayed picture can be rotated for a better review angle on the LCD screen.

- 1. Set the camera to Playback mode.
- 2. Press the D button.
- 3. Press the or button to select "ROTATE".
- 4. Press the button.



6. Press the button.





### Playing the Video Clip

- 1. Set the camera to Playback mode.
- 2. Use the △ or ♥ button to select the video clip you want to play.
- 3. Press the (\*) button to start playing the selected video clip.
- 4. Press it again to stop.



### NOTE:

You also can use the Down button to select "NO" and press the OK button to cancel playing the latest video clip. Then use the Up and Down buttons to select the video clip you want to playback.

### Protect or Unprotect Picture(s) or Video Clip(s)

- 1. Set the camera to Playback mode.
- 2. Press the button.
- 3. Press the  $\bigcirc$  or  $\bigcirc$  button to select "PROTECT".
- 4. Press the button.



- 5. Press the  $\triangle$  or  $\nabla$  button to select the desired setting.
- 6. Press the button.



- 7. Press the  $\triangle$  or  $\nabla$  button to select "EXIT".
- 8. Press the button.



The  $O_{\pi}$  icon appears on the information display when you review the protection status of the protected picture or video clip.



#### NOTE:

To unprotect the protected picture or video clip, please repeat the above steps and select "UNLOCK".

### Deleting Picture(s) or Video Clip(s)

- 1. Set the camera to Playback mode.
- 2. Press the button.
- 3. Press the  $\bigcirc$  or  $\bigcirc$  button to select "ERASE".
- 4. Press the 3 button.
- 5. Press the ♠ or ♥ button to select the desired setting.
- 6. Press the (3) button.





- 7. Press the  $\bigcirc$  or  $\bigcirc$  button to select the desired setting.
- 8. Press the button.





#### NOTE:

- To delete one picture or video clip, use the or button to select the one you want to delete before the above operation.
- Protected file can not be deleted. Remove protection before deleting.
- All deleted pictures and video clips can not be recovered.

### 6 Using SD (Secure Digital) Card

### • Using a SD Card

Your camera comes with a 8MB built-in flash memory for storing pictures and video clips. You can expand the memory using a commercially available SD card (up to 512MB). The camera senses whether a memory card is inserted, and automatically saves pictures and video clips accordingly. Note that you cannot save pictures or video clips to the built-in flash memory while a memory card is installed in the camera.

#### **Memory Card Precautions**

- 1. Use only an SD memory card with this camera.
- Electrostatic charge, electrical noise, and other phenomena can cause data corruption or even loss. Always make sure that you always back up important data on other media (MO disc, computer hard drive, etc.).
- If a memory card starts to behave abnormally, you can restore normal operation by reformatting it. However, we recommend that you always take along more than one memory card whenever using the camera far away from the home or office.
- 4. We recommend that you format a memory card before using it for the first time after purchasing it, or whenever the card you are using seems to be the cause of abnormal pictures. Remember to format a memory card if it was used in another digital camera or other devices.

#### IMPORTANT!

- Make sure you turn off the camera before inserting or removing a memory card.
- Be sure to orient the card correctly when inserting it. Never try to force a memory card into the slot when you feel resistance.
- SD memory cards have a write protection switch that you can use to protect files from accidental deletion. However, you must remove the write protection whenever you want to record new files onto it, format it, or delete its files.
- Files contained in the SD card recorded by other cameras may conflict with the iON 230 camera, and valuable data in your existing SD card may be distorted or lost when the card is inserted in the iON 230 camera. We strongly recommend the user to use a NEW or formatted SD card for the iON 230 camera. The manufacturer is not liable for losing or corrupting any valuable data or files in your SD card due to your improper operation.

### Inserting the SD Card

Turn off the camera. Insert the SD card and ensure the card is inserted correctly as illustrated.

#### Removing the SD Card

To remove the SD card, turn off your camera, gently push the SD card inwards and then release it for the SD card to eject from the SD card slot.





#### IMPORTANT!

- Never insert any other object into the camera's SD card slot. Doing so creates the risk of damage to the camera and card.
- Should water or any foreign objects ever get into the card slot, immediately turn off the camera, remove the batteries and contact your dealer or nearest service provider.
- Never remove a card from the camera while the camera is powered on.
   Doing so can cause the picture or video recording operation to fail, and even damage the memory card.

### Formatting the SD Card

Formatting the SD card erases all files stored in it, including the protected ones. Removing the SD card during formatting may damage the card.

- 1. Insert an SD card into the camera card slot.
- 2. Turn on the camera.
- Procedures are the same as for formatting the internal memory. Refer to "Formatting the Internal Memory" on page 16 for details.



#### IMPORTANT!

- You can format a memory card on the camera or on a computer. However formatting a memory card on a computer takes much longer.
- Note that data deleted by a format operation cannot be recovered. Make sure
  you do not have any useful data currently stored on a memory card before
  you format it.
- Formatting a memory card destroys all the pictures, even those are protected.

### 7 Installing the Software onto a Computer

### Installing the Software

For Windows® Users:





#### IMPORTANT!

# For all PC users

- Please backup all the necessary data before any driver and software installation.
- The CD-ROM is tested and recommended to use under English Windows OS.
- Microsoft® NetMeeting™ is already bundled with Windows® 2000 and XP OS. Users using Windows® 2000 or XP do no need to install this software from the CD-ROM.

#### For Windows® 98SF

On Windows® 98SE Mass Storage function needs to install the iON 230 Driver.

#### For Windows® Me, 2000, XP

Directly plug-in the camera to transfer and play the pictures and video clips.

### For PC only

This camera can act as a web camera. You must install the Camera Driver if you want to use the camera as a web camera.



#### IMPORTANT!

To experience higher performance in graphics and sound when you're watching video clips on your PC, it is recommended to install the DirectX ver. 9.0 or above. It can be downloaded from http://www.microsoft.com/directx.



IMPORTANT! - If the computer requests you to install the Windows® system disk during the software installation, place the Windows® CD into the computer CDROM drive or insert the iON 230 driver CD to the CD-ROM drive. If iON 230 driver CD is inserted, please set the path to "CD-ROM drive \software\Driver\ Sysfile". The computer will install the necessary files from the CD automatically. When the software completes installation, close the Windows® screen. Remove the Windows® CD and store safely.

- Before you begin, close all other software applications open on your computer.
- Insert the CD supplied into the computer CD-ROM Drive.
- 3. The CD User Interface Screen will automatically launch.
- With the mouse, click on each software interface button in turn and follow the on screen instructions.



Open & Close



If the setup screen does not appear after loading the CD, then you can manually start it by double-clicking the "My Computer" lcon on your desktop, then double-clicking the icon for the CD-ROM drive. When the CD-ROM window opens, double-click the "INSTALL-E.EXE" icon.

#### For Macintosh Users:

Mac

#### NOTE:

Directly plug-in the camera to transfer and navigate the pictures and video clips no need to install the driver.

- Before you begin, close all other software applications opened on your computer.
- 2. Insert the CD supplied into the computer CD-ROM Drive.
- 3. Double click the CD-ROM icon "Polaroid".
- 4. Install the software included.

## Software Included with Your Camera iON 230 Camera Driver Plug & Play removable disk

Easy to use, just plug the camera to a computer and use it as a removable disk. Use the iON PhotoBase to edit and print the Pictures.

# iON PhotoBase software - the intelligent software that makes finding your pictures easy!

iON PhotoBase helps you to organize and present multimedia files. You can quickly and easily create Slide Shows, Web Albums and Video Postcards. Meanwhile, you can effectively print contact sheets for quick image referencing. The unique "album" structure of the program makes file access convenient. On top of that, you can acquire files from various sources, including digital cameras, scanners, video devices, and removable media.

After you plug-in the camera, the iON PhotoBase software automatically checks to see if you have taken new photos that need to be transferred to your computer. If there are new images, you will be prompted if you want iON PhotoBase to download all the images in the camera to your computer automatically.

With the iON PhotoBase software, you can quickly sort all the photos on your computer either by the date or by image/folder name. Once you have located your images, you can make your simple edits, print or share in no time at all!





Assign the date to each of your photos here. This date will help you locate your images quickly.

## Microsoft® NetMeeting™ Web Cam software

NetMeeting™ provides the most complete conferencing solution for the Internet and corporate intranet.

Powerful features let you communicate with both audio and video, collaborate on virtually any Windows-based application, exchange graphics on an electronic whiteboard, transfer files, use the text-based chat program, and much more. Using your PC and the Internet, you can now hold face-to-face conversations with friends and family around the world.

#### Adobe® Acrobat® Reader .PDF File Reading Software

Adobe® Acrobat® Reader lets you view and print Adobe Portable Document format (PDF) files on all major computer platforms, as well as fill in and submit Adobe PDF forms online.

## Computer System Requirements

For acceptable picture transferring and editing performance, we recommend the following minimum requirements;

#### For Windows® Users

PC

- Compatible with Microsoft® Windows® 98SE, Me, 2000 or XP
- Pentium<sup>®</sup> II 333MHz or equivalent processor
- 64MB RAM (128MB recommended)
- USB Port.
- DirectX 9.0 or higher
- 200MB free disk space
- Colour monitor with high colour (16-bit) graphic capability or higher
- . CD-ROM drive
- · Standard mouse and keyboard
- Stereo speakers

#### For Macintosh Users

Mac

PowerPC® Processor

- Mac OS 9.2 ~ X
- USB Port
- 64MB RAM (128MB recommended)
- 150MB Free disk space
- Colour monitor with high colour (16-bit) graphic capability or higher
- CD-ROM drive
- Standard mouse and keyboard
- · Stereo speakers

# 8 Transferring Pictures and Video Clips to Your Computer

#### Before You Transfer Pictures

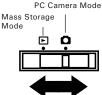
IMPORTANT! - Before you transfer your pictures make sure you have installed the software from the CD.

## Changing the Driver Type Between Mass Storage Mode and PC Camera Mode

You can choose either Mass Storage or PC Camera as a driver type in this camera.

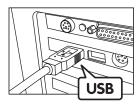
Mass Storage mode allows the camera to become an external hard disk drive, and you may view and download pictures and video clips stored in your camera's internal memory or a SD memory card onto your computer. PC Camera mode allows you to take video clips on your computer.

You can choose the Mass Storage or PC Camera mode by sliding the Capture/Playback selector.





# • Connecting to Your Computer Connecting with the USB Cable.



USB Series "A" Plug Connects to your PC



USB Series "Mini B" Plug Connects to your iON 230 Camera

- 1. Turn on the camera.
- 3. Plug the other end of the USB cable into the USB port on your camera.

#### For Windows® Users:



## • Transferring and Viewing the Pictures and Video Clips on PC

- 1. Turn on the camera
- 2. Set the Driver Type to Mass Storage mode.
- 3. Connect the camera to a computer via the USB cable.
- 4. Double click on "My computer" icon on your windows desktop. Then you can see a "Removable Disk" drive.
- Double click "Removable Disk" -> double click "DCIM" -> double click "100MEDIA".
- All the pictures and video clips are placed in the folders "100MEDIA".
   Highlight the pictures or video clips and drag them to a folder of your choice. You can also create sub folders to group them.

#### For Macintosh Users:



• Transferring and Viewing the Pictures and Video Clips on Mac

NOTE:

For Mac user, directly plug-in the camera, no need to install the driver.

- 1. Turn on the camera
- 2. Set the Driver Type to Mass Storage mode.
- Connect the camera to a Mac via the USB cable, the systems will automatically recognize the MASS STORAGE drive. (System will automatically create a Mass Storage named "untitled")



This drive name will vary on different versions of Mac OS systems.

- Double click the folder "untitled" to enter sub-folder "DCIM" ->
  double click "100MEDIA".
- You can copy the pictures and video clips from the "100MEDIA" folder and paste them to the hard disk.

# 9 Using the Camera as a Web Cam



Before using the Web Camera function, make sure that your camera has been switched to PC Camera mode. (Please refer to "Changing the Driver Type Between Mass Storage Mode and PC Camera Mode" on page 41 for more details.

## Setting up NetMeeting™



Set the camera to Video Mode before starting NetMeeting™.

- Connect your iON 230 to your computer via the USB cable. Connect the USB cable to a USB port on your PC on the other end.
- 2. Put your iON 230 on the top of your PC monitor or another flat surface.
- 3. Connect your microphone (not included) and speakers (not included) to your audio card's Mic in and line out jack respectively.

## Start NetMeeting™



#### NOTE:

For Windows® XP / 2000 users who use NetMeeting for the first time , go to Start -> Run -> type in "conf" -> click "OK" and then follow the on-screen set up instruction to set up NetMeeting.

- Double click the "NetMeeting" icon on the desktop or select the "NetMeeting" icon from the Windows Start Menu.
- 2. If you need further help on how to use Microsoft® NetMeeting™, select the "Help" under the menu bar and choose the topic you need. You can also refer to "EASY TO USE GUIDE TO MICROSOFT® NETMEETING™" or visit the website:

http://www.microsoft.com/windows/netmeeting.





# 10 Troubleshooting Problems

The troubleshooting guide is designed to help you. If problems continue, please contact your local customer support hot-line. See your registration card for help line contact details.

Symptom	Problem	Solution
I receive an error message when I am installing "iON	"iON 230 Camera Driver" does not load.	Shut down all other applications and attempt to reinstall the driver.
230 Camera Driver".		Check to see if the USB controller in your BIOS if it is activated. Please refer to Polaroid website for how to active USB controller in BIOS
I cannot upload images to	Connection failure.	Check all cable connections are secured.
my computer.	Camera Driver is not installed.	You need to install the camera driver for Windows 98SE systems.
I cannot run the "iON 230 Camera Driver".	Conflict with another camera driver or capture device.	If you have another camera installed on your computer, remove it and it's driver completely from your system to avoid conflicting with your iON 230.
My CD Installation wizard does not work.	The auto installation file is switched off or the CD-ROM is disconnected.	Go to the computer desktop. Right click on "My Computer". Click "Properties". Select "Device Manager". Double click on "CD ROM", double click on "CD-R (normally the manufacturer's name. Click on "Settings". Ensure both "Auto insert notification" and the "disconnect" are ticked. If you change the settings the computer will ask you to restart your PC. Click "Yes".

Symptom	Problem	Solution
I get a blurred image when uploading my images to my computer.	There may be a momentary delay between pressing the Shutter button and the actual exposure.	Hold your iON 230 camera steady until you hear a beep which indicates the exposure is completed.
My iON 230 camera hanged and all buttons do not work.	Your camera may be affected by the electrostatic discharge.	Take out the batteries and disconnect the camera from the computer for 10 seconds. Insert the battery again.
I cannot activate my digital camera by pressing the Power button.	Insufficient battery power or batteries are missing.	Replace batteries.
Camera does not turn on.	Batteries are not oriented correctly Or Batteries are dead	Orient batteries correctly Or Replace batteries
Camera suddenly powers off.	Auto power off function is activated. Or Batteries are dead.	Turn the camera on. Or Replace batteries.
Image is not recorded when the Shutter button is pressed.	Camera is turned off Or Flash unit is charging. Or Memory is full.	Turn the camera on. Or Wait until flash unit charging finishes. Or Delete images you no longer need, or use another memory card.
Camera powers off during self-timer countdown.	Batteries are dead.	Replace batteries.

Symptom	Problem	Solution
Recorded pictures are not saved in memory.	Camera powers off before the save operation is complete  Or  Removing the memory card before the save operation is complete.	If the battery indicator is on the LCD screen, replace batteries with a full set of new ones as soon as possible Or Do not remove the memory card before the save operation is complete.
Colour of the playback pictures is different from the picture on the LCD screen during recording.	Sunlight or light from another source is shining directly into the lens during recording.	Position the camera so that sunlight does not shine directly onto the lens.
Pictures are not displayed.	A memory card with non-DCF pictures recorded with another camera is loaded in the camera.	This camera cannot display non-DCF pictures recorded onto a memory card used by another digital camera.
I cannot erase pictures.	All the pictures in memory are protected.	Unprotected the pictures you want to delete.
AVI file cannot be played.	DirectX version is lower than 9.0.  Or  Windows Media player not installed in the computer	Install directx 9.0 or above. Visit http://www.microsoft.com/directx for more detail. Or Please go to http://www.microsoft.com/windows/ windowsmedia/players.aspx to download the Windows Media Player to play the video clips.
The camera is detected by the Windows and works properly. But a drive letter of the Removable disk is not created.	The removable disk crashes with the network drives.	Disconnect the crashed network drive and reserve this drive letter for the camera.
There is no response from the camera while pressing any buttons.	The LCD screen is frozen or the camera is hanged.	Remove and re-install the battery or batteries to reset the camera. Your valuable data stored in the camera will not be lost.
When connect the camera to the PC in Capture mode, Windows prompt to insert system disk.	iON 230 camera driver installation has not completed.	Insert the Windows CD or iON 230 driver CD. If iON 230 driver CD is inserted, please set the path to "CD-Rom drive\software\Driver\Sysfile".  And continue the installation.

Please also refer to the help files & User Guide that accompany the enclosed applications. For further information and support, please visit our website: http://www.polaroid-digital.com.

## 11 Getting Help

## • Polaroid-digital Online Services

Website: http://www.polaroid-digital.com

If you have any problem or for any immediate assistance, please phone the hotline, send e-mail to the support email address or write to the address shown on the registration card enclosed.

## ArcSoft Software Help For North America

ArcSoft HQ Support Centre (Fremont California, CA)

Tel: 1-800-762-8657 (toll free number)

Fax: 1-510-440-1270

E-mail: support@arcsoft.com

## For China

ArcSoft China Support Centre (Beijing)

Tel: 8610-6849-1368 Fax: 8610-6849-1367 E-mail: china@arcsoft.com

#### For Oceania

ArcSoft Australian Support Centre (Baulkham Hills, New South Wales) land) Tel: 61 (2) 9899-5888

Fax: 61 (2) 9899-5728

E-mail: support@supportgroup.com.au

#### For South & Central

Tel: 1-510-979-5520 Fax: 1-510-440-1270

E-mail: latlnsupport@arcsoft.com

## For Japan

ArcSoft Japan Support Centre (Tokyo)

Tel: +81-03-3834-5256 Fax: +81-03-5816-4730

Web: http://www.mds2000.co.jp/arcsoft E-mail: japan@arcsoft.com and support@mds2000.com

#### For Europe/Middle East/ Africa & Rest of the World

ArcSoft Europe Support Centre (Ire-

Tel: +353-(0) 61-702087 Fax: +353-(0) 61-702001 E-mail: europe@arcsoft.com

Visit http://www.arcsoft.com for technical support and frequently asked questions (FAQ's).

# 12 Appendix

# • Technical Specifications

Picture Resolution	Sensor: - 1/2 inch - 3.2 Mega Pixels CMOS Resolution & Storable Images (based on 8MB internal memory)			
	Quality Image Size	High	Normal	Low
	2048 x 1536 pixels	6	8	15
	1600 x 1200 pixels	14	19	22
	640 x 480 pixels	50	80	100
Lens	Type: 5 groups Aperture: F 2.8 Focal Length: 8.8 mm Focal Distance Normal Focus: 4.3 ft to infinity (1.3 m to infinity) (The focusing range is the distance from the lens surface to the subject.) Focus Zones: centre-zone			
LCD Screen	1.5" TFT color pane	el		

Built-in Flash	<ul> <li>Modes</li> <li>Auto Flash, Forced On, Flash Off</li> <li>Range: 3.2 to 4.9 ft (1 to 1.5 m)</li> </ul>
Exposure Control	+/- 2.0EV (-1.5 ~ +1.5 EV in 0.3 increments)
Shutter Speed	Electronic shutter 1/1000 sec ~ 1/20 sec
White Balance	Auto, Outdoor, Shade, Light Bulb, Fluorescent
Storage	Internal Memory: 8MB Nand Flash     External Memory     supports SD card up to 512MB (not included)
File Format	Still Image     EXIF 2.1 compatible format (JPEG compression)     Video Clip: AVI format
Power Supply	2 AA-size batteries (included)
Self-timer	10 seconds with beep sound
Tripod Socket	Yes

Connectivity	With computer via USB cable (included)
Dimension	Size: (W) 90 mm x (D) 21 mm x (H) 63 mm     Weight: Approximately 106g excluding batteries or card
Operating System	For Windows® Users: Microsoft® Windows® 98SE, Me, 2000 or XP     For Macintosh Users: Mac OS 9.2~X

# • Capacity of SD Cards

	SD Card	High Quality	Normal Quality	Low Quality
	2048 x 1536 pixels	22	30	56
32MB	1600 x 1200 pixels	52	71	82
	640 x 480 pixels	186	298	373
	2048 x 1536 pixels	45	60	112
64MB	1600 x 1200 pixels	104	142	164
	640 x 480 pixels	373	596	745
128MB	2048 x 1536 pixels	89	119	224
	1600 x 1200 pixels	209	283	382
	640 x 480 pixels	745	1193	1491
	2048 x 1536 pixels	179	239	447
256MB	1600 x 1200 pixels	417	267	656
	640 x 480 pixels	1491	2385	2982
	2048 x 1536 pixels	358	477	895
512MB	1600 x 1200 pixels	835	1133	1312
	640 x 480 pixels	2982	4771	5964

SD Card	Video Resolution	Video clips can be taken (@ 10fps)
32MB	320 x 240 pixels	8 minutes
64MB	320 x 240 pixels	17 minutes
128MB	320 x 240 pixels	34 minutes
256MB	320 x 240 pixels	68 minutes
512MB	320 x 240 pixels	136 minutes



# MOTE:

Scene complexity affects a picture's file size. For example, a picture of trees in autumn has a larger file size than a picture of blue sky at the same resolution and quality setting. Therefore, the number of pictures you can store on a card may vary.

## Uninstalling the Camera Driver (For PC users only)

- 1. Unplug the camera from the PC.
- 2. Go to Start -> Setting -> Control Panel.
- 3. Double click Add or Remove Programs.
- 4. In Add or Remove Programs, select "Polaroid Digital Cam" and click the Change/Remove button.
- 5. Restart the computer after uninstall.

## Using Your Batteries



For best performance and prolonged battery life, we recommend the use of AA lithium or rechargeable NiMH.

## Limit the following activities that reduces battery life:

- Reviewing your pictures on the LCD screen.
- Using the LCD screen to take pictures (Use the optical viewfinder to frame pictures).
- · Excessive use of the flash.

#### WARNING!

- · Batteries should be replaced by an adult.
- Do not mix different types of batteries (or new and used batteries).
- Use recommended or equivalent type of batteries only.
- Insert the batteries in the correct polarity.
- Remove exhausted batteries from the camera immediately.
- Do not short the supply terminals.
- Do not dispose the batteries in fire.
- Remove batteries from the camera when not in use.

These instructions should be retained for future reference.

## Tips, Your Safety & Maintenance

Your Camera should only be operated within the following environmental conditions;

- 32 104° Fahrenheit; 0 40° Celsius
- 20% 85% relative humidity, non condensing

Battery life or image quality may be affected outside these conditions.

## 

- NEVER immerse any part of the Camera or its accessories into any fluid or liquid.
- ALWAYS disconnect the Camera from your PC or TV before cleaning it.

- ALWAYS remove dust or stains with a soft cloth dampened with water or neutral detergent.
- NEVER place hot items on the surface of the Camera.
- NEVER attempt to open or disassemble Camera as this will affect any warranty claim.

# • Regulatory Information

## **FCC Notice**

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference

to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded cable must be used with this unit to ensure compliance with the Class B FCC limits.

Under the environment with electrostatic discharge, the product may malfunction and require user to reset the product.